

The Automobile Speaks

It tells you what it is, what it requires and it asks to be treated fairly.

By Frederick C. Guerrich.

No. 12.

TIMING MY DISTRIBUTOR SYSTEM.

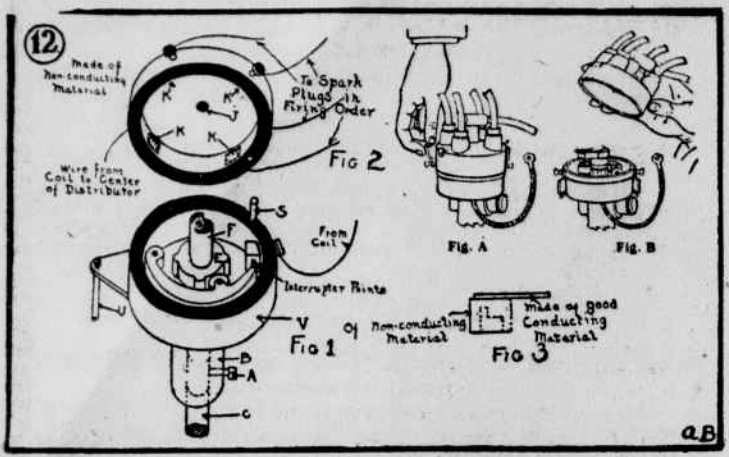
When doing any work upon me, if you be wise you will, before you touch a tool, first secure all the data to perform the work. Thus, to time my distributor system, or any ignition system, you will first have to determine my firing order and then the direction in which the various moving parts move or rotate when the engine is running. It will also be wise to first read my instruction book, as some important hints may be given to you in it.

The timing of any two devices to one another consists in setting one at some predetermined position and then setting the other at the position it must be when the first is at that predetermined position.

Thus, to time my ignition system, you would first set piston No. 1 at the position in which it must be when the spark comes. This will be at the top dead center between the compression and power stroke. The ignition instrument will then be set at the position in which it gives a spark. This will be when the interrupter points just begin to open.

Having determined the firing order and the direction of rotation of the ignition instrument's shaft, you would proceed to time a distributor system as follows:

1. Set my No. 1 piston at top center between the compression and power stroke. As cylinder No. 4 in a four and cylinder No. 6 in a six are on exhaust



when No. 1 is on compression, watch their exhaust valve while cranking the engine. When this valve rises you know that the piston is coming up on the exhaust stroke and that No. 1 piston is coming up on the compression stroke. When No. 1 piston arrives at the top it will therefore be on top dead center between the compression and exhaust strokes and ready for the spark.

2. Retard my spark control lever on the steering column fully and then advance it to the fourth or fifth notch.

3. Take hold of the sleeve B, Fig. 1, and revolve it IN THE DIRECTION OF ROTATION until the interrupter points JUST BEGIN TO OPEN. I repeat, just begin to open, then fasten the instrument by tightening the set screw, as, for example, "A," though there are different methods of fastening it.

4. Put on the distributor brush and partly the cover and see which segment the brush or rotor is touching or approaching. Connect this segment to spark plug No. 1 and then put on the cover.

Note—If the length of the wires or their protecting cover is such that only one wire can be connected to No. 1 segment and plug, see that the rotor is approaching No. 1 segment when setting the interrupter.

5. Connect the remaining segments in the order in which they are touched by the rotor, to the plugs in the firing order. Thus for a firing order of 1, 3, 4, 2, the second segment is connected to plug No. 3, the third to plug 4 and the fourth to plug 2.

6. Connect the main secondary wire from the coil to the binding post in the center of the distributor cover.

7. Wire up the primary circuit, following the wiring diagram, if you have it.

Where novices fail mostly, when timing ignition devices, is in not making the instrument fast when the points JUST BEGIN TO OPEN. The mistake of having cylinder No. 4 between exhaust and suction instead of between compression and power is also often made.

As there are no two makers of ignition instruments who use exactly the same wiring, some using the ground for the return of the current, while others furnish a wire for this purpose, some putting the switch between the battery and the coil, while others put it between the coil and the interrupter, and so on, the writer cannot tell you how to wire your particular car. To do this you will have to be guided by the wiring diagram which the manufacturer furnishes.

Every driver of a car should be familiar with the wiring of it, and should know how to time his ignition system. While it is extremely seldom that the distributor comes loose from its shaft, nevertheless it is simply held by set screws, which sometimes do come loose and the instrument thus gets out of time. When this happens you are as liable to be miles from nowhere as in the shop.

I would recommend that those of my readers who have cars equipped with the distributor system get out their wiring diagram, which will be found in their instruction book, and trace their wiring, and also go over the steps of timing the instrument. This can be done without in any way changing the setting or taking off any of the wires.

Where readers must leave their cars unattended in some place from which it might be stolen, they can make the stealing more difficult by taking off the distributor brush, which is a simple thing to do. The brush and distributor can be put back in only one position as a rule.

BRADFIELD IS WITH THE YELLOW CAB CO.

Announcement of the appointment of H. G. Bradfield of Detroit as director of sales and advertising for the Yellow Cab Manufacturing Company of Chicago is made by that company. Mr. Bradfield, who has been president and general manager of the Bradfield Company, Detroit, has discontinued his Detroit business.

The Yellow Cab Manufacturing Company, in addition to being the largest manufacturer of taxicabs, also manufactures Yellow Cab trucks, three-wheelers and one and one-quarter ton capacities and a six cylinder high grade motor car—the Ambassador. The company is on a capacity schedule for their present time with no unbalanced inventory or unsold finished stock.

Associated with Mr. Bradfield as sales manager of the taxicab division of the company is J. B. Dub, who was formerly associated with Mr. Bradfield with the old Premier Motor Car Company of Indianapolis.

AUTO SHOW TO BE HELD AT MADISON SQ. GARDEN

The manufacturers voted to hold next winter's National Automobile Show at Madison Square Garden in New York and at the Coliseum in Chicago, at the annual meeting of the National Automobile Chamber of Commerce.

Five new directors were elected as follows: A. J. Brown, Mack Bros. Motor Car Company; A. R. Erskine, Studebaker Corporation; Alvan Macauley, Packard Motor Car Company; William E. Metzger, Columbia Motors Company; R. E. Oels, Reo Motor Car Company.

Officers elected included: President, Charles Clifton, Pierce-Arrow Motor Car Company; vice-president, Roy D. Chapin, Hudson Motor Car Company; secretary, H. H. Brooks, Buick Motor Car Company; treasurer, H. H. Brooks, Buick Motor Car Company; general manager, Alfred Reeves.

BOWMAN AUTO CO. OPENS NEW SHOWROOM

An event of special interest to New York motorists is the opening of a large new showroom by the Sidney B. Bowman Automobile Company at 1922-1924 Broadway, at Sixty-fourth street.

There will be a special exhibit of the various models of the Kiesel Custom Built Six and the Grant Six during the week in this centrally located and spacious showroom, and all interested in fine motor cars are invited.

This showroom will be maintained in addition to the Kiesel and Grant showrooms in the Bowman Building at Broadway and Sixty-fourth street.

LIQUIDATION OVER, SAYS HARDING

Governor of Federal Reserve System Says Business Trend Is Upward.

"The emergency of 1920 has definitely passed," said W. P. G. Harding, governor of the Federal Reserve system, speaking before the annual meeting of the National Automobile Chamber of Commerce.

"There is nothing as far as the financial condition of the country is concerned as affected by the Federal Reserve banks that causes any other feeling than one of optimism."

Availability of credit, the fact that automobile shipments for the past two months equalled 67 per cent. of the same months of last year, the feeling that prices have reached a new stable level, and Governor Harding's statement that "the public has a great deal of buying power left" were major points of the meeting.

Governor Harding pointed out that the financial situation of the Federal Reserve system is stronger than it has ever been before, and that the banks are anxious to lend to legitimate business.

"We want to get the public out of the idea that things are constantly going lower and lower," said Governor Harding, "and we should get some stability into the situation."

The public has a great deal of buying power left, were major points of the meeting. The automobile market is a leader in return of buying, reports at the meeting brought out. The May shipments exceeded April by 13 per cent., and April and May shipments were 67 per cent. of the same months of last year, comparing favorably with the steel market, with pig iron, which is on a 50 per cent. basis, and with rail transportation, which is on a 60 per cent. basis.

"The Federal Reserve banks," said Governor Harding, "which are the ultimate resource of all member banks, and through them, of the public, are in a position now better than ever before to extend to all legitimate business all assistance needed and are not only in position to do this but are anxious for business to avail itself of it."

PAIGE SETS NEW MARK AT UNIONTOWN

E. M. Dalley, local distributor for the Paige-Detroit, has received complete figures of the record breaking performance made by Ralph Mulford, driving a stripped stock car Paige-Detroit, chassis over the Speedway at Uniontown.

In this speed test—100 miles in 1:06:32.26—record after record for stock cars from five to one hundred miles went by the board. The performance, together with the wonderful figures made in the Pike's Peak cog road test and the remarkable Daytona mile scored by the Paige, round out a series of spring triumphs for the car.

In the Uniontown record breaking Mulford sent his car the first five miles in 3:15.48, or at the rate of 31.8 miles per hour. A ten mile run, which he covered in 6:21.48, he was traveling at 31.9 miles per hour. Fifteen miles were covered in 9:46.96, and at this distance Mulford was speeding along at the rate of 32.1 miles per hour. Mulford continued at or near this average up to twenty-five miles, when the first noticeable slackening of speed came, and this was due to the fact that the tires were beginning to feel the strain.

NEW SCRIPPS-BOOTH IS MEDIUM SIX MODEL

Announcement has been made that the Scripps-Booth Corporation has added to its line of light six cylinder cars a new model which will be known as "the Medium Weight Six." It will be produced in four body styles—a five passenger touring car, a three passenger roadster, a five passenger four-door sedan and a four passenger coupe.

Commenting on the addition to the Scripps-Booth line, W. C. Poertner, Eastern distributor for the car, has the following to say: "The factory's appreciation of the fact that the motorist of to-day is demanding even more of his motor car than he has in the past in design, quality of materials, power, comfort and dependability was the incentive that prompted the designing of the new model."

"These needs of the present day motorist have been before the designers in their production of this new model. The power plant they have selected as the one best suited to meet these conditions is the well known six cylinder Continental Red Seal motor. This produces more than 50 horse power, ample driving energy for a car of the weight of the medium six even under trying conditions. There are many other features to the new model which must be seen to be appreciated, and from its general makeup it will no doubt become one of the most popular of the Scripps-Booth lines."

CHANGES IN PERSONNEL OF MARMON COMPANY

Several changes in the official and executive personnel of Nordyke & Marmon Company, including the creation of two new vice-presidents, are announced by Walter C. Marmon, president of the company.

A. R. Heiskell and H. G. Shafer are the two new vice-presidents. H. L. Purdy, formerly assistant treasurer, fills Mr. Heiskell's former position as treasurer; H. H. Brooks, formerly sales manager, becomes secretary of the company in Mr. Shafer's place.

H. H. Brooks is now sales manager, and A. J. Rogers, advertising manager, takes his former place of assistant sales manager.

AMERICAN SIX

Prices Reduced to Rock Bottom

NEW PRICE REDUCTION

SEDAN \$3,150.00 \$345.00

4 PASSENGER SPORT CAR. 2,350.00 245.00

7 PASSENGER TOURING .. 2,275.00 200.00

5 PASSENGER TOURING .. 2,195.00 200.00

ROADSTER 2,195.00 200.00

229 West 57th Street

TELEPHONE CIRCLE 4346

The Balanced Six

AMERICAN

Miles & Smiles

Guarantee with Every Car Equivalent to Manufacturer's

NEW YORK MOTOR CAR EX.

19-21 W. 62d St. Two Doors From B'way

SOUTHERN JERSEY ROAD CONDITIONS

Routes to Shore Resorts Reported in Excellent Condition.

The chief roadman of the Club of Automobiles of the State of New Jersey, speaking before the annual meeting of the National Automobile Chamber of Commerce, reported that the gravel roads connecting the large cities and the shore resorts are in excellent condition through the section south of Lakewood and east of Philadelphia.

The trunk line from Lakewood to Atlantic City is in such fine shape that twenty-five miles an hour can be maintained the entire distance.

The swamp on both sides of the Mullica River south of Greta (which has been a menace to motorists for a number of years because of the water covering the roads at high tide) is now open over the new causeway, which has been under construction for the past year; the surface is now in first class condition.

An excellent gravel road turns off the Lakewood-Atlantic City trunk line at Manahawken and crosses Barnegat Bay on a bridge continuing through Passaic to Beach Haven, which is located on a long narrow strip of land with the ocean on one side and Little Egg Harbor on the other and offers a splendid beach for swimming.

Most of the motorists going to Atlantic City from northern and western points use the Absecon Boulevard, which starts at Absecon, a small village located at the end of the Philadelphia-Atlantic City trunk line and enters Atlantic City in the center of the business section, within a short distance of all the larger hotels.

Motorists going from Atlantic City to Cape May will find that the road is in good condition. The route follows: From Atlantic City go south on Atlantic avenue to Longport, where it crosses the bridge and along the causeway to Somers Point, where a bridge is crossed, the

Prompt Action Will Secure for You a New \$1800 Automobile For \$995 (and freight)

LAST CALL!

A financial emergency requires our quick disposal of a limited number of STANDARD MAKE MOTOR CARS. Six-cylinder, five-passenger automobiles, guaranteed absolutely new, priced in your city at \$1800. We will deliver this car to you for \$995 and freight.

To raise immediate funds we make this amazing offer of nearly 50% off. Write or wire at once for particulars and name of car which we are not allowed to advertise.

NORMAN SALES COMPANY

238 West 54th St. Fourth Floor

Telephone: Circle 113

SMASHING REDUCTION SALE USED AUTOMOBILES

True to our well-known policy of never being undersold, we have decided to hold

THE LARGEST SALE OF SELECT USED CARS EVER ATTEMPTED IN GREATER NEW YORK

Every car in our showrooms will be priced in plain figures and offered at prices regardless of cost or less.

SALE STARTS MONDAY AT 8:30 A. M.

CONTINUING DAILY UNTIL 9 P. M. THURSDAY

TERMS OF SALE

25% Deposit down, balance must be paid and car removed from premises on or before June 18th.

Greatest Bargains ever offered in automobiles. Look these prices over. They speak for themselves.

Here Are the Cars Offered

Regular Price Sale Price

Cadillac Sedan, Type 59 \$4750 \$4275

Cadillac Limousine, Type 59 4750 4275

Cadillac Coupe, Type 59 4250 3825

Cadillac Touring Car, Type 59 3600 3240

Cadillac Touring Car, Type 57, Double Letter 2800 2400

Cadillac Touring Car, Type 57, Single Letter 2250 1850

Cadillac Roadster, Type 57, 2d Series 2250 1850

Cadillac Sedan, Type 55 2150 1850

Mercer Brand New 6-Passenger 4750 3750

Mercer 1920, 4-Passenger 3550 3150

Mercer 1920, Speedster 3550 3150

Mercer 1919, 4-Passenger 2750 2400

Mercer 1919, Town Car 3250 2650

Stutz 1920, 6-Passenger Touring 2650 2250

Stutz 1919, 4-Passenger 2250 1850

Stutz 1919, Speedster 2350 1850

Packard 3-35, Fleetwood 4-Pass. Sport 3750 3250

Packard 3-25, Landaulet, Derham Body 3650 3150

Pierce-Arrow 38, Series 4, 7-Pass. Touring 3500 2950

Pierce-Arrow 38, Series 4, Landaulet 3400 2850

Pierce-Arrow 38, Series 3, Town Car 2500 1850

Pierce-Arrow 38, Series 2, Landaulet 1350 1050

Daniels 1920, Roadster, Special Job 4250 3550

Hudson 1921, Sedan 2750 2350

Hudson Model "O" Sedan 2350 1850

National Sedan, Special Body 1650 1250

Franklin 1920, Chummy Roadster 1950 1650

Standard "8" 7-Passenger Sedan 2350 1850

Chandler 1920, Touring 1350 1050

Chandler 1918, Touring 950 750

Chandler 1919, Sedan 1750 1350

Studebaker 1920, Big Six Touring 1650 1350

Metz 1920, Touring 950 650

Buick Coupe, ideal for doctor 1250 950

Buick 1920, Touring 1250 1075

Phianna Town Car, Latest Model 2700 1850

S. G. V. Town Car, Latest Model 1850 1350

Oldsmobile 1918, Sedan 1150 850

We also have on hand a number of miscellaneous cars at \$550 each. Come early and take your pick.

First Come, First Served.

We are the only used car establishment in Greater New York having our own Service Station—Painting, Trimming and Electric Departments—all in the one building.

Guarantee with Every Car Equivalent to Manufacturer's

NEW YORK MOTOR CAR EX.

19-21 W. 62d St. Two Doors From B'way

KISSEL COMPANY JOINS IN PRICE REDUCTION

To meet the demand of motorists who want Kiesel quality at a popular price the Kiesel Motor Car Company announces that in addition to the standard touring, by building the custom built tourer, coupe and sedan in the standard model, it is able to price them at \$500 less than former models without sacrificing quality or comfort. These new models will be available on and

after June 10 and will make their first appearance in New York at the show rooms of the Sidney B. Bowman Automobile Company, Broadway at Sixty-fourth street and Broadway at 131st street.

In a statement issued by Mr. Sidney B. Bowman, president of the Sidney B. Bowman Automobile Company, he states: "Present Kiesel prices are based on 1921 material and labor cost, inventory is figured at present and future prices and present prices are figured at normal overhead."

The factory prices of the standard models that carry the \$500 reductions are the standard touring at \$2,775, the standard tourer at \$2,975, the standard coupe at \$3,775 and the standard sedan at \$3,775.

Special Sale \$975 Delivered Tax Paid

CROW ELK-HART MOTOR CARS

4 Cyl. Herschell Spillman Motor Right Hand Drive Magneto Equipment

5-Passenger Touring Crow Elk-Hart Motor Corp. of N. Y.

1838 Broadway, Opp. 60th St. Phone Columbus-1222. Annex Display, 61st St. & Central Park West. OPEN EVENINGS.

To raise immediate funds we make this amazing offer of nearly 50% off. Write or wire at once for particulars and name of car which we are not allowed to advertise.

NORMAN SALES COMPANY

238 West 54th St. Fourth Floor

Telephone: Circle 113

While They Last!

Ten Brand New, Right Hand Drive

ROAMER CARS

20% Less Than List Price!

4 and 7 Passenger Tourings and Roadsters

These cars were built for export, but due to unforeseen circumstances arising in shipping dates, the order had to be cancelled. We are therefore enabled to offer the above cars at an extraordinary sacrifice while they last.

Every car represented in this sale is guaranteed absolutely brand new, with a wide variety of beautiful body and upholstery colors.

Each Car Bears Full Factory Guarantee

ROAMER SALES CO., INC.

1800 Broadway

New York

Phone Circle 5262

FOR SEVENTY YEARS NORDYKE & MARMON COMPANY HAS STOOD FOR HONORABLE MANUFACTURING, FOR CLEAN, FAIR DEALING AND FOR BUSINESS FAIR PLAY

At Your Door

if you request it—a \$3985 Marmon

Visualize a 20% saving. Ask your family to join you. Then drive away for a comparative demonstration.

THE Marmon 34 at \$3985 is the identical \$5000 car. And we sell it under the same plan of demonstration. We still repeat: "If it can't outstrip other cars you have in mind, don't consider it."

On a road demonstration we want you to see how it reacts under the 12 vital tests of performance. Compare its response with that of other cars you know.

We furnish you with a Scorecard—a professional method of judging, as used by automotive engineers.

Thus you are able to apply the same standards of critical comparison used by experts. You find it easy to compare performance this way. As easy as comparing prices.

A demonstration places you under no obligation. We do not importune you to buy. As a matter of fact, there is an inevitable shortage of Marmons this year.

So our aim now is to acquaint more people with the Marmon 34 regardless of sales. And to explain Advanced Engineering and Stabilized Design. Hitherto our appeal has been to a limited few. Now the circle of acquaintance is broadened.

Once you become acquainted with the Marmon 34, we know you'll concede this opinion, as most men do: that it is the supreme offering of the year.

And as sensational in performance as in price.

We invite you to visit us today, or telephone for a demonstration.

MARMON 34 PRICES NOW WAS

7-Passenger Touring \$3985.00 \$5000.00

4-Passenger Touring \$3985.00 \$5000.00

Club Roadster \$3985.00 \$5000.00

Speedster \$3985.00 \$5000.00

Coupe \$3985.00 \$5000.00

Limousine \$3985.00 \$5000.00

Town Car \$3985.00 \$5000.00

All prices at Indianapolis and subject to war tax

MARMON AUTOMOBILE CO. OF N. Y., Inc. 1880 Broadway—62d St., N. Y. Col. 5090

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MARMON OLDSMOBILE CO. E. J. DUNN, 165 PARK AV., NEWARK, N. J.

W. P. MARMON, 2327 Boulevard, Jersey City, N. J.

GRANT-BERGER CO., INC., 1048 Third Ave., MORRISTOWN, N. J.

NORDYKE & MARMON COMPANY

INDIANAPOLIS

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